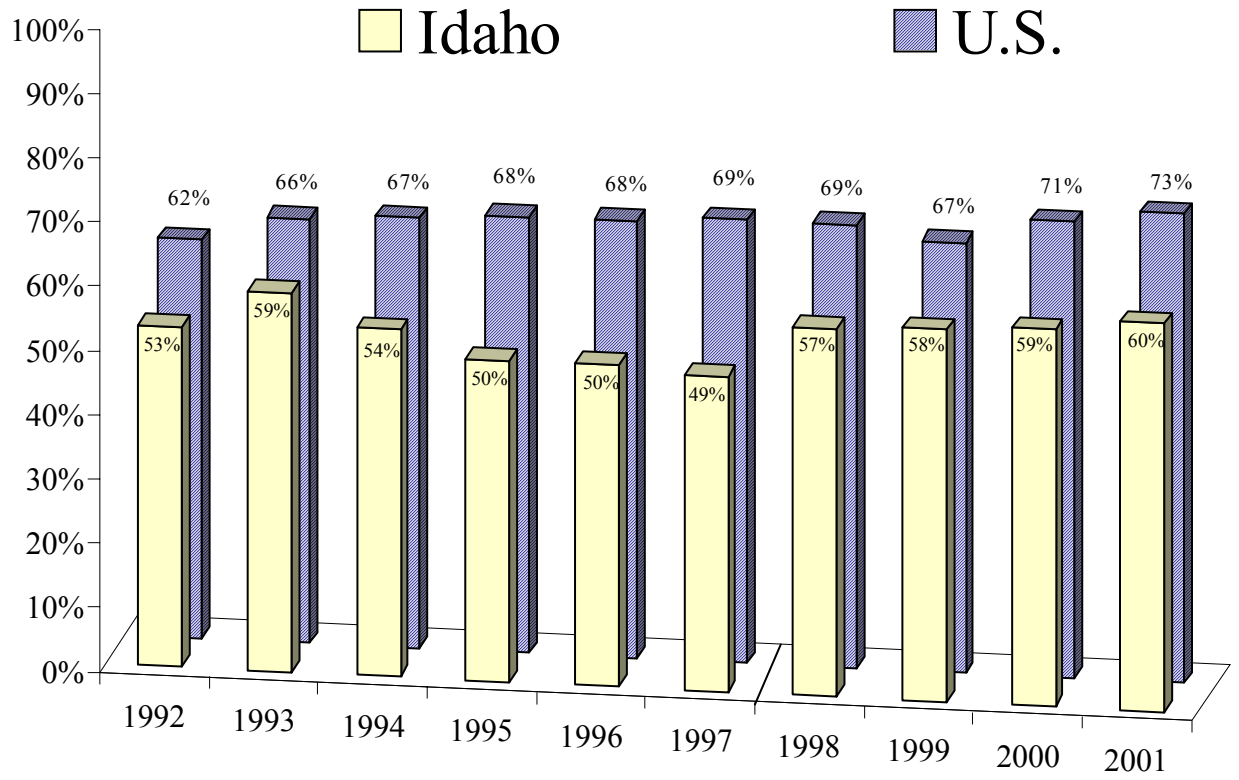
Safety Restraint Usage

Idaho's seat belt use law, effective July 1, 1986, requires seat belt use for front seat passengers and drivers, regardless of residency, in vehicles with a gross vehicle weight of 8,000 pounds or less that were manufactured with safety belts. The law is a "secondary" law and can only be enforced when someone is stopped for another traffic violation. Idaho's child restraint law is a primary enforcement law.

Figure 13 depicts observed shoulder harness use by year for both Idaho and the U.S. The figures are the observed rates for persons in passenger cars, pickups, sport utility vehicles, and vans, which make up around 93% of the vehicles involved in motor vehicle crashes. The U.S. usage rate is based on a combination of observational surveys from all 50 states.

Figure 13
Observed Seat Belt Usage – Idaho vs. U.S.: 1992 - 2001



The methodology for the observational seat belt survey was changed in 1998 in accordance with the National Highway Traffic Safety Administration (NHTSA) guidelines. Comparisons of 1998 and future surveys to historical data (1986 – 1997 surveys) should be made with caution as the new methodology differs greatly from the previous methodology.

Observational Seat Belt Survey Results

Table 26 shows the observed shoulder harness seat belt use by county.

Table 26
Observed Seat Belt Use by County: 1998-2001

	1998	1999	2000	2001	Change 2000-2001	Avg. Change 1998-2000
Ada	67.6%	65.8%	63.8%	66.8%	4.7%	-2.8%
Bannock	42.3%	48.7%	49.5%	56.0%	13.1%	8.4%
Bingham	36.6%	39.7%	39.6%	51.8%	30.8%	4.2%
Blaine	48.8%	48.9%	38.9%	52.3%	34.4%	-10.2%
Bonner	58.4%	48.4%	57.2%	54.4%	-5.0%	0.6%
Bonneville	54.0%	58.8%	56.6%	63.4%	12.0%	2.5%
Canyon	57.8%	62.9%	58.3%	58.3%	0.0%	0.8%
Cassia	33.4%	38.7%	40.5%	49.1%	21.3%	10.2%
Elmore	52.7%	47.3%	55.0%	57.7%	4.8%	3.0%
Kootenai	60.6%	53.4%	64.6%	59.5%	-7.9%	4.5%
Latah	58.6%	60.5%	61.5%	57.6%	-6.3%	2.4%
Madison	43.7%	41.6%	45.1%	49.7%	10.2%	1.8%
Minidoka	29.5%	35.6%	44.3%	48.1%	8.5%	22.6%
Nez Perce	63.1%	57.0%	52.3%	56.2%	7.4%	-9.0%
Payette	65.5%	66.6%	59.6%	63.3%	6.2%	-4.4%
Twin Falls	39.8%	46.4%	52.6%	54.4%	3.5%	15.0%
Statewide	**57.3%**	**57.9%**	**58.6%**	**60.4%**	3.0%	1.1%

The Office of Highway Safety evaluates compliance rates through analysis of collision data and statewide observational surveys of seat belt use. Observational surveys are conducted by observing shoulder harness use or non-use. The observational survey is a representative sample of the State and does not include all counties.

Table 27 shows the observed seat belt use for the Idaho Transportation Department (ITD) districts[4] by vehicle type. District 3 (south western Idaho) had the highest overall usage at 65%, while district 4 (south central Idaho) had the overall lowest usage at 51%.

Table 27
Idaho Safety Belt Observation Survey: 2001 – Usage by Vehicle Type

ITD District	Passenger Cars	Vans and Sport Utility Vehicles	Pickup Trucks	All Vehicles
1	64.5%	60.9%	46.1%	57.7%
2	59.6%	58.8%	59.9%	56.6%
3	71.2%	64.1%	54.2%	64.6%
4	56.6%	60.6%	35.4%	51.0%
5	59.1%	57.8%	44.0%	54.4%
6	63.1%	61.7%	37.7%	56.4%
Statewide	**66.7%**	**62.2%**	**48.8%**	**60.4%**

Usage rates for the occupants of pickup trucks continue to be significantly lower than usage rates for other types of passenger vehicles. The usage rate for pickup truck occupants in 2001 ranged from a high of 59.9% in District 2 (north central Idaho) to a low of 35.4% in District 4 (south central Idaho).

Seat belt usage varied by the type of roadway the vehicles were traveling on. It ranged from a high of 77.9% on urban interstates to a low of 47.2% on rural minor collectors. While there was virtually no difference between urban and rural sites, there was a difference of 7 percentage points between major and minor roads. The difference was not statistically significant. Major roads were defined as interstates and principal arterials. Minor roads were comprised of the rest of the roadway functional classifications.

Self-Reported Seat Belt Usage Results

Table 28 shows the self-reported seat belt use for people, ages 4 and older, in passenger cars, pickups, sport utility vehicles and vans that were killed or seriously injured. Research has indicated there is a tendency for persons involved in collisions to falsely report compliance with the seat belt law and thus, self-reported use tends to overstate actual use[5]. Seat belt use by severely or fatally injured occupants can be more directly assessed by law enforcement officers or emergency medical personnel, and is therefore, more reliable.

Table 28
Self-Reported Seat Belt Use : 1998-2001
(Age 4 and older in Passenger Cars, Pickups, Sport Utility Vehicles, and Vans)

Injury Type	1998	1999	2000	2001	Change 2000-2001	Avg. Change 1998-2000
Fatalities -Restraints Used	27.4%	22.8%	28.7%	29.7%	3.6%	4.5%
Serious Injuries -Restraint Used	48.5%	50.0%	49.7%	51.0%	2.6%	1.2%

Of the 212 motor vehicle occupants killed in 2001, only 63 were using seat belts. The National Highway Traffic Safety Administration estimates seat belts are 50% effective in preventing fatalities and serious injuries. By this estimate, we can deduce that 63 lives were saved in 2001 by seat belt usage. An additional 75 lives could have been saved if everyone had buckled up.

Costs of Injuries

Table 29 illustrates the costs of injuries sustained by occupants, over the age of four, of passenger vehicles for persons both using and not using safety restraints.

Table 29
2001 Costs of Injuries
Persons Using Safety Restraints versus Persons Not Using Safety Restraints

	Safety Restraints		Costs of Injuries	
Injury Type	Used	Not Used	Used	Not Used
Fatality	63	149	$190,644,732	$450,889,923
Serious Injury	695	668	$145,602,296	$139,945,804
Visible Injury	3,003	1,601	$125,825,523	$67,081,806
Possible Injury	5,269	1,387	$116,517,917	$30,671,921
Total			**$578,590,468**	**$688,589,453**

The cost of injuries for persons not using safety restraints was $110 million dollars more than for those who were using safety restraints. This is a conservative estimate of the difference. The true difference may be higher since many of the people may have falsely reported their seat belt usage. Assuming that 74% of the cost of collisions is passed on to the general public (page 9), every person in Idaho contributed about $62 for those persons who chose not to buckle up.

Child Safety Seat – Self-Reported Usage

Table 30 shows self-reported child safety seat use for children, under age 4, in passenger cars, pickups, sport utility vehicles, and vans from 1998 to 2001. Overall, the use rate has increased from 72% in 1998 to 83% in 2001. Idaho Code requires every child, under the age of four, and weighing less than 40 pounds be restrained in a car safety seat that meets the federal standards when traveling in a noncommercial motor vehicle manufactured with seat belts after January 1, 1966.

Table 30
Self-Reported Child Safety Seat Use by Injury Type: 1998-2001
(under age 4 in passenger cars, pickups, sport utility vehicles and vans)

Injury Type	1998	1999	2000	2001	Change 2000-2001	Avg. Change 1998-2000
Fatalities						
Restrained	2	4	1	0	-100.0%	12.5%
Unrestrained	6	1	0	3	300.0%	-91.7%
Serious Injuries						
Restrained	7	3	9	4	-55.6%	71.4%
Unrestrained	10	9	7	5	-28.6%	-16.1%
Visible Injuries						
Restrained	38	51	32	37	15.6%	-1.5%
Unrestrained	36	35	20	24	20.0%	-22.8%
Possible Injuries						
Restrained	91	73	85	103	21.2%	-1.7%
Unrestrained	45	34	29	31	6.9%	-19.6%
No Injuries						
Restrained	1,326	1,262	1,414	1,367	-3.3%	3.6%
Unrestrained	459	317	285	247	-13.3%	-20.5%
Total Restrained	1,469	1,396	1,553	1,525	-1.8%	3.1%
Total Unrestrained	562	397	348	318	-8.6%	-20.9%
% of Children Restrained	72.3%	77.9%	81.7%	82.7%	1.3%	6.3%

The National Highway Traffic Safety Administration estimates child safety seats are 69% effective in preventing fatalities and serious injuries. By this estimate we can deduce that child safety seats could have saved 2 of the 3 children killed in 2001. Additionally, 3 of the 5 unrestrained serious injuries may have been prevented if they had all been properly restrained.

Local Safety Restraint Usage

Table 31 presents self-reported restraint use rates for counties comparing 1998 through 2001. Collision data provides an analysis of the restraint use at the local level. This information is self reported to the investigating officer after a collision. Self-reported usage is consistently higher than observational seat belt usage.

Table 31
Self-Reported Restraint Use by County: 1998-2001
(persons in passenger cars, pickups, sport utility vehicles and vans only)

County by Population	1998	1999	2000	2001	Change 2000-2001	Avg. Change 1998-2000
50,000 and over						
Ada	83.3%	82.8%	84.1%	85.5%	1.7%	0.5%
Bannock	76.6%	79.5%	79.0%	83.4%	5.5%	1.6%
Bonneville	72.2%	73.5%	73.8%	78.8%	6.8%	1.1%
Canyon	75.7%	78.7%	78.2%	78.5%	0.3%	1.7%
Kootenai	81.8%	82.4%	84.9%	84.3%	-0.6%	1.9%
Twin Falls	71.7%	72.6%	75.6%	80.8%	6.9%	2.7%
20,000 - 49,999						
Bingham	61.2%	63.1%	67.9%	71.6%	5.5%	5.4%
Bonner	77.7%	75.5%	76.3%	76.4%	0.1%	-0.9%
Cassia	68.2%	65.6%	71.2%	72.5%	1.9%	2.4%
Elmore	71.9%	76.4%	78.6%	81.7%	3.9%	4.6%
Latah	80.8%	82.2%	83.3%	82.8%	-0.6%	1.5%
Madison	64.0%	69.5%	65.5%	73.6%	12.5%	1.4%
Nez Perce	81.8%	80.8%	82.1%	84.4%	2.8%	0.2%
Payette	75.0%	76.9%	81.4%	75.9%	-6.8%	4.2%
10,000 - 19,999						
Blaine	77.0%	76.9%	63.7%	68.4%	7.3%	-8.6%
Franklin	65.3%	70.3%	70.8%	67.1%	-5.1%	4.2%
Fremont	60.3%	70.8%	60.9%	62.2%	2.3%	1.7%
Gem	61.6%	55.9%	60.1%	68.9%	14.7%	-0.9%
Gooding	54.6%	58.5%	62.4%	63.4%	1.6%	6.9%
Idaho	64.7%	66.7%	70.5%	72.4%	2.7%	4.4%
Jefferson	66.7%	67.3%	64.1%	73.8%	15.0%	-1.9%
Jerome	73.5%	69.6%	68.5%	74.0%	8.0%	-3.4%
Minidoka	64.6%	59.2%	66.2%	68.3%	3.1%	1.7%
Owyhee	63.7%	63.9%	60.0%	65.7%	9.5%	-2.9%
Shoshone	67.5%	65.1%	68.6%	70.4%	2.5%	0.9%

Table 31 (Continued)
Self-Reported Restraint Use by County: 1998-2001
(persons in passenger cars, pickups, sport utility vehicles and vans only)

County by Population	1998	1999	2000	2001	Change 2000-2001	Avg. Change 1998-2000
5,000 - 9,999						
Bear Lake	64.1%	61.8%	55.5%	66.9%	20.5%	-6.9%
Benewah	66.3%	66.1%	60.4%	59.7%	-1.3%	-4.4%
Boise	70.9%	78.7%	76.2%	76.2%	-0.1%	3.9%
Boundary	74.1%	74.7%	78.6%	72.0%	-8.4%	3.0%
Caribou	61.3%	65.0%	66.3%	73.8%	11.2%	4.0%
Clearwater	73.5%	61.1%	69.7%	61.9%	-11.2%	-1.4%
Lemhi	43.4%	41.3%	34.9%	34.9%	-0.1%	-10.1%
Power	74.3%	66.8%	65.0%	73.2%	12.6%	-6.4%
Teton	63.3%	53.8%	73.1%	67.5%	-7.8%	10.5%
Valley	74.2%	82.1%	74.0%	77.1%	4.2%	0.4%
Washington	61.9%	62.4%	68.7%	68.0%	-1.0%	5.5%
0 - 4,999						
Adams	70.8%	69.3%	79.6%	79.6%	0.0%	6.4%
Butte	41.4%	54.2%	68.8%	73.9%	7.4%	28.9%
Camas	55.2%	63.2%	48.4%	67.3%	39.1%	-4.5%
Clark	79.1%	82.1%	86.8%	86.0%	-0.9%	4.7%
Custer	63.1%	73.8%	70.1%	68.6%	-2.2%	6.0%
Lewis	57.2%	60.2%	64.1%	68.1%	6.2%	5.8%
Lincoln	61.8%	53.0%	76.7%	69.0%	-10.1%	15.3%
Oneida	61.3%	64.9%	73.5%	75.4%	2.5%	9.6%
Statewide Average	**74.5%**	**76.3%**	**77.5%**	**79.7%**	**2.8%**	**2.0%**